INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
553 E. Miller Drive, Bloomington IN 47401

MEMORANDUM **DATE:** January 2, 2003

TO: John Goss **FROM:** Jim Mitchell
Deer Management Biologist

SUBJECT: Recommendations for Deer Reductions on Indiana State Parks and Nature Preserves in 2003.

During 2002, the Department of Natural Resources adopted new criteria for implementation of White-tailed deer reduction on properties controlled by the Division of State Parks and Reservoirs and the Division of Nature Preserves. Properties where deer reductions have been implemented in the past will have further reductions whenever the previous year's removal exceeds 16 deer per square mile of deer habitat or exceeds 0.2 deer removed per hunter effort (for firearm reductions).Whenever a year's removal falls below the above criteria, no removal will occur during the following year but a removal will be implemented after skipping one (1) year. For properties which have not had any deer reductions, the vegetative health and diversity will be monitored following the procedures developed by Professor George Parker of Purdue University. A deer reduction will be initiated on a new property when the vegetative analysis for the property indicates that deer are impacting the vegetation at a moderate or more severe level.

The basis for the above criteria was that harvest data are very economically collected, are quantifiable data, and are very sensitive predictive indicators of deer population trends. Additionally, in Indiana, we find that healthy female deer (does) have an average of approximately 1 fawn per year that lives beyond September to be recruited into the herd. Approximately half of the fawns are males and half females. Therefore, in Indiana, a deer herd that is not hunted will approximately double in size every 2 years . Certainly by the 3rd year, any unhunted deer herd will significantly more than double in size. If we are to minimize the vegetative damage of deer in our parks while maximizing the number of deer available for park visitors to observe, the deer reduction should take place at least every other year.

By long term monitoring of the condition of vegetation on the parks and then correlation of deer harvest data with the vegetative data, we will be able to fine tune the level of harvest for each individual park that is compatible with the above goals. As we continue the long term vegetative monitoring, we may find that although a reduction every other year may balance the ecosystem in some parks, the vegetation in other parks may not be

adequately protected unless reductions are more frequent than every other year.

Based on all of the above criteria, I recommend that deer reductions be implemented during 2003 on the following State Parks and Nature Preserves:
Brown County, Chain O'Lakes, Charlestown, Clifty Falls, Fort Harrison (New), Harmonie, Indiana Dunes, Lincoln, McCormick's Creek, Mounds (New), Ouabache, Pokagon, Potato Creek, Shades, Shakamak, Spring Mill, Summit Lake (New), Tippecanoe River, Turkey Run, Versailles, Whitewater Memorial, Twin Swamps.

DEER/VEGETATION ANALYSIS 2002
DEER REDUCTION RECOMMENDATIONS 2003

Park	Last Hunt	Harvest/ Effort	Harvest/ Sq Mile	Reduce in 2003
Brown County	2001	.22	9.9	Yes
Chain O' Lakes	2002	.51	43.7	Yes
Charlestown	2001	.21	14.0	Yes
Clifty Falls (Archery only)	2002	.15	25.4	Yes
Fort Harrison	(Severe Vegetative Impact 2002)			Yes
Harmonie	2002	.41	34.2	Yes
Indiana Dunes	2001	.20	15.5	Yes
Lincoln	2002	.29	21.7	Yes
McCormick's Ck	2002	.33	22.4	Yes
Mounds	(Heavy Vegetative Impact 2002)			Yes
Ouabache	2002	.97	89.0	Yes
Pokagon	2001	.17	12.3	Yes
Potato Ck	2002	.48	35.8	Yes
Shades	2002	.31	23.2	Yes
Shakamak	2002	.52	30.4	Yes
Spring Mill	2002	.39	26.2	Yes
Summit Lake	(Heavy Vegetative Impact 2001)			Yes
Tippecanoe River	2002	.37	27.3	Yes
Turkey Run	2002	.28	17.7	Yes
Twin Swamps	2002	.80	82.1	Yes
Versailles	2002	.26	21.5	Yes
Whitewater	2002	.39	36.9	Yes